UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 25, 2002

MEMORANDUM TO: Melvyn N. Leach, Chief
Special Projects and Inspection Branch
Division of Fuel Cycle Safety
and Safeguards

THRU: Joseph G. Giitter, Chief RJW for JGG
Special Projects Section
Special Projects and Inspection Branch, FCSS

FROM: Timothy C. Johnson
Senior Mechanical Systems Engineer
Special Projects Section
Special Projects and Inspection Branch, FCSS

SUBJECT: MAY 29, 2002, MEETING SUMMARY: LOUISIANA ENERGY SERVICES PRE-APPLICATION MEETING ON CODES AND STANDARDS, PHYSICAL SECURITY, AND TOPICS PREVIOUSLY REVIEWED

On May 29, 2002, U.S. Nuclear Regulatory Commission (NRC) staff met with staff from Louisiana Energy Services (LES) to discuss codes and standards, physical security, and treatment of topics previously reviewed in the Homer, Louisiana, gas centrifuge enrichment project. These were pre-application discussions related to LES's planned submittal of an application for a gas centrifuge enrichment plant in December 2002. I am attaching the meeting summary for your use. This summary contains no proprietary or classified information.

Docket: 70-3103

Attachment: Louisiana Energy Services
Meeting Summary

cc: William Szymanski/DOE
Rod Krich/Exelon
James Curtiss/W&S
Mario Robles/USEC

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DISTRIBUTION: Docket: 70-3103

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OFC	SPIB*	E	SPIB*	2E	SPIB		SPIB	
NAME	TCJohnson:dw		DHoadley		ARayland		JGiitter	
DATE	6 / 25 /02		6 / 25 /02		6 / 25 /02		6 / 25 /02	

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Louisiana Energy Services Pre-Application Meeting Summary

Dates: May 29, 2002

Place: U.S. Nuclear Regulatory Commission (NRC) offices;
Rockville, Maryland

Attendees: See Attachment 1

Purpose:

The purpose of this meeting was to discuss with Louisiana Energy Services (LES) staff information applicable to a gas centrifuge license application addressing codes and standards, physical security, and treatment of topics previously reviewed by the NRC in the Homer, Louisiana, project. The meeting agenda is provided in Attachment 2.

Discussion:

Following introductions, T.C. Johnson, D. Brown, and J. Giitter provided a summary of their visit to the Urenco gas centrifuge plants in Capenhurst, United Kingdom, and Almelo, The Netherlands. The visit was valuable to see enrichment operations being conducted using gas centrifuge. Significant points included seeing the simplicity of the plant operations; how few staff was required to operate the facility; how the plant is broken into three main areas (feed and withdrawal, process services and support, and the cascade halls); how maintenance and decontamination is performed; how clean the plant is maintained; and how Urenco dispositions its tailings by shipping it to Tenex in Russia for enrichment back to natural uranium levels.

T. Harris then made a brief presentation of the environmental review approach for the LES project (see Attachment 3). NRC staff is planning to prepare an Environmental Impact Statement (EIS) for the LES project on an aggressive 18-month schedule. To accomplish this, NRC staff is assuming that the facility will be constructed on an existing nuclear site and the design will be similar to the previous Homer, Louisiana, project. NRC staff is also assuming that:

1. There will be early contractor support for preparation of the EIS,
2. Material in the previous Homer, Louisiana, project EIS can be used,
3. Site visits and scoping meetings can be combined,
4. There will be effective communication with LES staff,
5. NRC will receive a high quality Environmental Report (ER),
6. LES will provide a timely and complete response to any requests for additional information,
7. A 45-day comment period will be used for obtaining comments on the Draft EIS; and
8. There will be a reasonable number of public comments.

T. Harris presented the following schedule:

1. Receive the ER in December 2002,
2. Conduct scoping meetings in February 2003,

3. Publish the Draft EIS in October 2003; and
4. Publish the Final EIS in June 2004.

T. Harris stated that to meet the above schedule NRC would need to obtain early contractor support for preparation of the EIS before LES submits its ER. LES staff agreed and had no objection to NRC obtaining the needed support. LES also indicated it would use draft NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs," for preparing its Environmental Report.

In response to a question, R. Krich indicated that it had narrowed its selection of sites to three sites. However, until appropriate notifications are complete, LES is not ready to identify those sites. R. Krich indicated that the three sites would be announced later in June.

R. Krich then began a discussion of LES's approach to using the codes and standards (see Attachment 4). For buildings and support facilities, LES will use the applicable U.S. building codes. Fire protection systems will be designed to National Fire Protection Association standards. LES will use the equivalent U.S. codes for designing gas centrifuge equipment. For example, American Society of Mechanical Engineers (ASME) B31.3, "Process Piping," will be used for piping systems. All design information will be presented in metric units. LES will contract for assistance from U.S. code experts to ensure that equivalent U.S. design codes are used in adapting the European gas centrifuge plant designs.

For criticality safety evaluations, LES plans to use the computer code MONK8A. For radiation dose calculations, LES will use the Monte Carlo Neutron Particle (MCNP) 4C code. NRC staff indicated that it is familiar with these codes and their use is acceptable.

For quality assurance, LES plans to prepare a quality assurance program to meet the ASME NQA-1 standard. This standard is consistent with 10 CFR Part 50, Appendix B, requirements and exceeds the management measures requirements in 10 CFR Part 70. LES staff will also be qualified in accordance with American National Standards Institute (ANSI)/American Nuclear Society (ANS) 3.1, "Selection and Training of Nuclear Power Plant Personnel."

For physical security, LES staff plan on meeting current NRC physical security requirements. Any new requirements resulting from NRC's ongoing review of its security regulations will be incorporated as the requirements are promulgated. LES staff consider that its plant design based on the Almelo plant will accommodate U.S. requirements in 10 CFR 70.32 and 10 CFR Part 73. R. Krich indicated that LES plans to request no deviations from NRC guidance. R. Krich also indicated LES would use NUREG-0908, "Acceptance Criteria for the Evaluation of Nuclear Power Reactor Security Plans," as guidance. However, he also indicated that the proposed plant will not be sited at a nuclear power plant site. NRC staff then suggested that this guidance would not be applicable for the proposed facility. NRC staff suggested that Regulatory Guide 5.59, "Standard Format and Content for a Licensee Physical Security Plan for the Protection of Special Nuclear Material of Moderate or Low Strategic Significance," would be more appropriate guidance for development of a physical security plan. For radiological sabotage, NRC's main concern is the bulk quantity of uranium hexafluoride. NRC staff is also concerned about theft and diversion of nuclear materials.

For information that NRC previously reviewed and approved in the previous LES project for the Homer, Louisiana, site, LES will provide a roadmap identifying this information in its license

application. This will include identifying information that is unchanged or which is bounded by previous reviews.

Action Items:

None.

Attachments:
1. Attendee list
2. Meeting agenda
3. T. Harris presentation handouts
4. LES presentation handouts

Louisiana Energy Services Pre-Application Meeting on
Physical Security, Codes and Standards, and Previously Reviewed Topics
Date: May 29, 2002

NAME	AFFILIATION	PHONE	EMAIL ADDRESS
TIM JOHNSON	NRC / FCSS	301-415-7299	TCJ @ NRC.GOV
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Joseph Bader	SELF	202-237-2423	JFB 3603@aol.com
Leslie Bowen	SAIC	202-488-6060	BOWENL@SAIC.com
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TRENT WERTZ	USEC	301-564-3324	WERTZT@USEC.com
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MIKE KNAPIK	McGRAW-HILL	202-383-2167	MIKE-KNAPIK@PLATTS.COM
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Margaret Chatterton	NRC / FCSS	301-415-7906	MSC1@NLC.GOV

Attachment 1

Louisiana Energy Services Pre-Application Meeting on
Physical Security, Codes and Standards, and Previously Reviewed Topics
Date: May 29, 2002

NAME	AFFILIATION	PHONE	EMAIL ADDRESS
David D. Brown	NRC/FCSS	(301)415-5257	ddb@nrc.gov
MELVIN LEACH	NRC/FCSS	301-415-7836	mnl@nrc.gov

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 14, 2002

MEETING NOTICE

Applicant:	Louisiana Energy Services Suite 610 2600 Virginia Avenue, NW Washington, DC 20037
Docket:	70-3103
Date and Time:	May 29, 2002; 1:00 p.m.
Location:	U.S. Nuclear Regulatory Commission Two White Flint North Building, Room T-10A1 11545 Rockville Pike Rockville, Maryland
Purpose:	To discuss physical security, codes and standards, and topics previously reviewed applicable to a gas centrifuge license application.
NRC Attendees:	M. Leach, J. Giitter, T.C. Johnson, J. Lieberman, A. Rayland, E. Johannemann, technical staff
Other Attendees:	P. Upson/LES; R. Krich/Exelon; JCurtis/Winston & Strawn; technical staff
Contact:	T.C. Johnson; 301-415-7299
	Attendance at this meeting by other than those listed above should be made known via phone to above contact.

NOTE: Meetings between the NRC staff and licensees are open for interested members of the public to attend as observers pursuant to the "Open Meeting Statement of NRC Staff Policy," 65 *Federal Register* 56964, September 20, 2000.

Portions of this meeting may be closed to members of the public due to the proprietary nature of information to be discussed pursuant to 10 CFR 2.790.

Attachment 2

Louisiana Energy Services Pre-Application Meeting Agenda
May 29, 2002

1:00 PM	Purpose/Introductions (TCJohnson)
1:15 PM	Plant Physical Security
2:00 PM	Codes and Standards
2:45 PM	Proposed Treatment of Topics Reviewed and Accepted by NRC
3:30 PM	Summary and Conclusions

NRC Environmental Review Approach

Proposed LES Enrichment Facility

Tim Harris, Project Manager
Environmental & LLW Section
EPAB/DWM/NMSS

Outline

- LES Proposed Schedule
- NRC Environmental Review Approach
- Assumptions
- Tentative Schedule

LES Assumptions

(Based on March 19, 2002 Meeting)

- Facility will be constructed on an existing nuclear site
- Design of new facility very similar to previous application
- Changes Include
  - Increase to 3 million SWU/yr
  - Increase in enrichment to up to 6 %
  - Sub-atmospheric feed stations
  - Elimination of Freons
  - Re-designed tails take-off

LES Proposed Schedule

Site Selection	Q2 2002
License App./ER	Q4 2002
License Approval	Q3 2004
Start Construction	Q3/Q4 2004

Attachment 3

NRC Environmental Review Approach

- 18 - month EIS Schedule Aggressive
- Accomplishment Requires
  - Early Contractor Support
  - Use of Previous EIS
  - Combined Site Visit & Scoping Meetings
  - Effective Communication with LES

Assumptions

- High Quality Environmental Report
- Timely Response to Request for Additional Information
- 45 day Comment Period
- Reasonable Number of Public Comments

Tentative EIS Schedule

Receive ER	12/02
Acceptance Review	1/03
Site Visit & Scoping Meetings	2/03
Request for Additional Info.	4/03
Publish DEIS	10/03
Public Meetings	11/03
LES resolution of comments	1/04
Publish FEIS	6/04

Louisiana Energy Services - NRC Meeting
Pre-Application Review

May 29, 2002

Rockville, MD

LES

Attachment 4

Codes and Standards

- **Purpose is to present the LES position on the application of codes and standards to the design of the proposed facility**
- **Identify computer codes that will be used for the analysis of facility operation**
- **Describe qualification standards to be applied to LES personnel**

Codes and Standards

- **Buildings and supporting facilities will be constructed to applicable US codes**
- **Fire protection systems will be designed in accordance with applicable National Fire Protection Association (NFPA) standards**

Codes and Standards

- **Equivalency of design codes and standards for the separation plant will be established by US code experts where necessary**
  - **Code experts will be identified**
  - **Design of certain structures, systems, and components (e.g. aluminum piping / liquid sampling autoclaves) will be converted to US codes and standards**
- **Design information will be in the metric system**

Codes and Standards

- **Computer code for analyzing criticality will be MONK Revision 8A**
- **Computer code for calculating radiation doses will be MCNP Revision 4C**
- **Other key computer codes used for the design and / or analysis of the facility will be identified in the application**

Codes and Standards

- **LES design and engineering controls will meet applicable US standards (e.g., ASME NQA-1 "Quality Assurance Program Requirements for Nuclear Facilities")**
- **LES design and engineering personnel qualifications will be equivalent to applicable US standards (e.g., ANSI / ANS-3.1, "Selection and Training of Nuclear Power Plant Personnel")**

Site Physical Security

- Plant design (based on Almelo layout) can accommodate US physical security requirements
  - Access Control
  - Security Force
- 10 CFR 70.32, "Conditions of Licenses" and 10 CFR 73, "Physical Protection of Plants and Materials"
  - NUREG-0908, "Acceptance Criteria for the Evaluation of Nuclear Power Reactor Security Plans"
- Deviations are not expected to be needed
- New / additional security requirements may be imposed as a result of the NRC's review of security regulations

LES

Treatment of Previously Reviewed/Accepted Information

- **Currently conducting a review of the previous Safety Analysis Report (SAR) through Revision 21 and the NRC's Safety Evaluation Report (SER), NUREG-1491, "Safety Evaluation Report for the Claiborne Enrichment Center, Homer, Louisiana" dated January 1994**
- **Information in the application including the Integrated Safety Analysis Summary, that is unchanged from or bounded by previously accepted information will be identified**
- **Application will specify information that is unchanged from or bounded by information previously found acceptable by the NRC as documented in the 1994 SER**